in general, in so far as the differences between animals and plants do not enter into consideration; (3) Literature dealing with the study of the cell generally."

There are five main headings: 'General'; 'Methods and Apparatus'; 'General Morphology'; 'General Physiology'; 'General Cytology.' That the classification of subject matter is scarcely more than a beginning, is shown by the very small number of subheadings, only 87 numbers out of a possible 9,999 being used. Under 'General Morphology' there occur only four subheadings, namely: 'General'; 'Tectology (Structure of the Individual)'; 'Promorphology (Fundamental Principles of Structure)'; and 'Teratology'; which are numbered 1,000, 1,100, 1,200 and 1,500 respectively, all other numbers from 1,000 up to 2,000 being yet unfilled. 'General Physiology' and 'General Cytology' are somewhat more elaborated, but in the former there are only thirty-two subheadings, and in the latter only thirty-one, out of a possible four thousand in each case. It is easy to point out important omissions which might readily have been avoided. Such a voluminous subject as 'regeneration' is not mentioned. While 'senescence,' 'degeneration' and 'death' are all present, 'growth' is wanting. Physiological articles are found under both 'General Physiology' and 'General Cytology.' Some of the subjects which were pointed out in a previous review (SCIENCE, XIX., No. 493, p. 886) as absent from the branch of the catalogue devoted to physiology proper, are here found under 'General Cytology.' These include 'irritability' and 'fatigue,' but 'summation of stimuli,' 'rhythm,' 'specific energy' and 'automaticity' are omitted, while no mention is made of the tactic irritabilities. If articles on the physiology of the cell are to be indexed in both branches of the catalogue, it would seem to be the most logical and convenient arrangement to employ the same classification for both; but this method is not followed, and with the exception of cross references there seems to be no relation whatever between the two.

The present volume is supposed to include the literature published in 1901, together with a portion of that of 1902. Nine hundred and eighty-two articles are catalogued. The number of American journals is thirteen, of which the *American Naturalist* is credited to the United Kingdom. Cross references to other volumes of the catalogue are very numerous and tend to compensate for the incompleteness of the present volume.

The general impression left by an examination of the volume is that in its present form it is tentative and inadequate. It might easily be made a valuable adjunct to the volumes on botany, zoology, physiology and bacteriology.

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SOCIETIES AND ACADEMIES.

THE SCIENCE CLUB OF THE UNIVERSITY OF WISCONSIN.

THE first regular meeting of the club for the year 1904–05 was held October 25, at 7:30 P.M., in the physical lecture room of Science Hall. Dr. V. Lenher gave an account of results obtained in a preliminary study of the gases dissolved in the water of Lake Mendota. It was shown that the amount of oxygen dissolved in the water of this lake decreases rapidly when the thermocline is reached, at a depth of about twelve meters, and that the carbonic acid in the water increases, so that while the surface water is faintly alkaline from dissolved calcium carbonate, the reaction of the water at this depth becomes acid.

The second paper of the evening, by Dr. S. Weidman, treated the subject, 'Wisconsin Iron-Ore Deposits,' with especial reference to the Baraboo district. The first year's shipment (1904) from the newly-discovered Baraboo district in Sauk County will probably reach 100,000 tons. The ore lies in the synclinal valley between the Baraboo quartzite ranges. The ore, associated dolomite, slate and quartzite are of pre-Cambrian age, like the formations in the Lake Superior iron districts. The valley is covered with upper Cambrian sandstone, and explorations are carried on by drilling through this formation. A number of good ore deposits have been

located, and the territory worthy of exploration is quite large. F. W. Woll,
Secretary.

DISCUSSION AND CORRESPONDENCE.

STOMACH STONES.

Those who have been interested in two recent papers concerning pebbles found with the remains of ancient reptiles, may like to read the following: About fifty years ago, some dozen or more hogs were enclosed in a pen which extended into a mill race. The hogs were fed entirely with ground feed in variety —meal, bran, corn and oats or sweepings—but no clover, grass or vegetables, so-called. When slaughtered, there were found in the stomachs of several of the animals, pebbles enough in each to fill the two hands of a man, as well as smaller quantities in some instances. In these cases, this habit was attributed largely to the peculiar diet of the pigs.

W. J. Beal.

To the Editor of Science: A number of instances are claimed of the retention at the present time of habits acquired in former geologic epochs in adaptation to conditions then existent but now changed, rendering the archaic habits to-day useless or even injurious. Such, for example, is the habit of certain migratory birds, in crossing the Mediterranean Sea, of following a line of 'extinct islands'; also the habit of the lemmings of Scandinavia of periodically seeking the 'lost island of Atlantis.'

Is it not *perfectly evident* that in the habit shown by seals and sea-lions of ingesting pebbles we have a retention of an ancient custom dating from the days when seals had gizzards? Maynard M. Metcalf.

THE METRIC SYSTEM.

To the Editor of Science: In the issue of Science of October 21, page 539, is a table of the height of African pygmies. This table is in British measures, and at the close of the article in which the table occurs is this statement: "In the writer's first description of these people in 1897 there occurs a mistake made in the conversion of the metric system to English measure."

Now I am not strictly an anthropologist, but I am interested in some features of the study, and when I take up the more substantial books on the subject, I find the measures given are metric. As physical culture is one of the points that interest me, it would be a great advantage to me if Mr. Verner had published his figures in metric terms. There would then have been no mistakes, and comparisons would have been much easier for those who approach the subject from the cosmopolitan standpoint.

Is it not about time that a paper like Science, which professes to represent the science of this country, should show a preference for the measures employed by almost all scientific workers—to the extent, at least, of printing all quantities in both systems as the medical papers often do? The matter is becoming more and more important every day. See, for example, the embarrassment caused by the two systems of measure in preparing a map of the world, *National Geographic Magazine,* October, page 407.

Wm. H. Seaman.

SPECIAL ARTICLES.

GOVERNMENT SUPERVISION OF HISTORIC AND PREHISTORIC RUINS.

The traffic in prehistoric wares from the southwest that has arisen during the past few years, with the attendant destruction of prehistoric remains, has become a matter of great concern to archeologists, who appreciate the gravity of this loss to anthropological science. Even though much of this material gathered by parties who are only commercially interested in it, eventually finds its way into public museums, its value to science is greatly reduced because of the absence of authentic records. Fortunately, a growing popular and educational interest in historic and prehistoric landmarks has arisen to assist in the preservation of these objects.

As a citizen of New Mexico who has watched with deep concern the loss of many of the incomparable archeological treasures of the southwest, I have recently taken up in a